

Fire group, gaps-1

- Spatial or ecotypic gaps:
 - YK Delta Fires (Sue Natali)
 - Yukon and Rockies lodgepole forests—poised to expand north
 - Canadian tundra—shrubby!
 - Latitudinal treeline in Canada (Dempster)
 - Post-fire successional dynamics in NWT (northern) forests, including tiaga plains and shield
- Historic data on fire regime (Paleon, Higuera); provides regional context for understanding regime change
- Consistent mapping of vegetation across borders, including above-ground fuels
- Consistent mapping of organic soil layers across borders, including soil fuels

Fire group, gaps-2

- Linking fire patterns and animals (caribou-lichen, moose-forage)
- Smoke and its myriad of effects on climate, aircraft, people, yellow-cheeked voles
- Effects of fire on ecosystem carbon balance and permafrost carbon vulnerability to decomposition
- Mapping long-term fire effects on permafrost (Climate-protected versus ecosystem protected permafrost).
- Post-fire successional trajectories, especially in Canada (grass?)
- Fuel management and biofuel harvest effects on permafrost integrity and successional trajectories
- Organic soil moisture data data connected to fuel moisture and scaled to the ABoVE region, indices used for decision making

Airborne Hopes and Dreams

- We will draw our polygons for field sites onto map
 - Focus on our current field sites
- Radar, LiDAR, hyperspectral, various permafrost and active layer indices
- GiLITE second pass on Denali tundra and early post-fire sites
- Best target region for post-fire forest successional dynamics: Northwest Territories taiga plains and shield
 - Rationale: we know very little about post-fire vegetation and C dynamics
 - Lots of field data on dynamics in Interior Alaska forests, Boreas sites further south
- Noatak and Seward Region are also a good tundra fire target: rich history of field data, many ages and repeat burns